

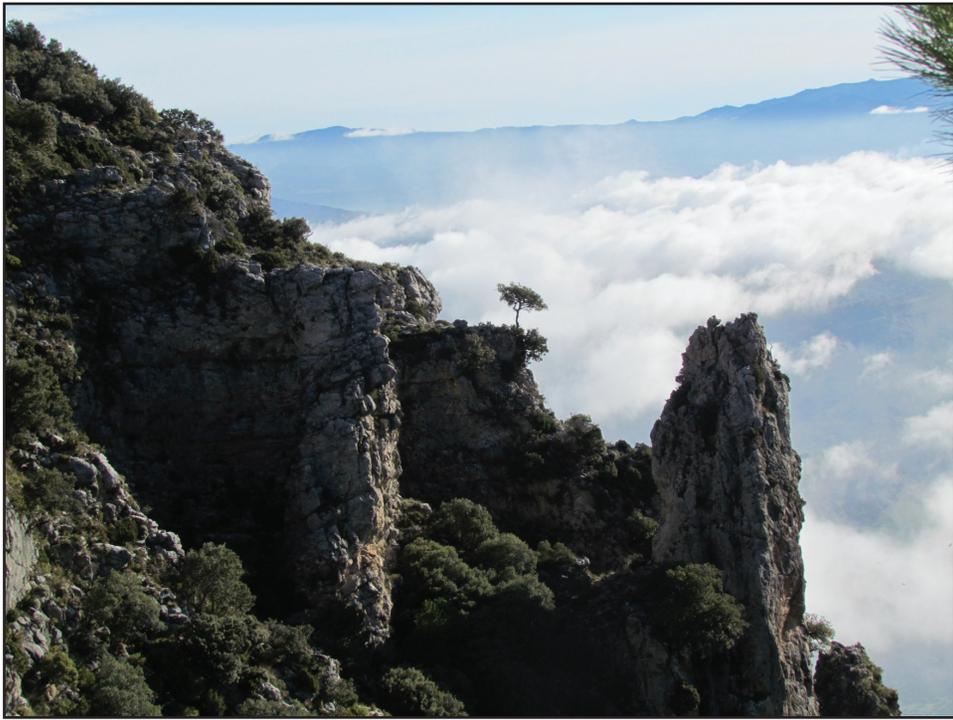
Conifer Quarterly



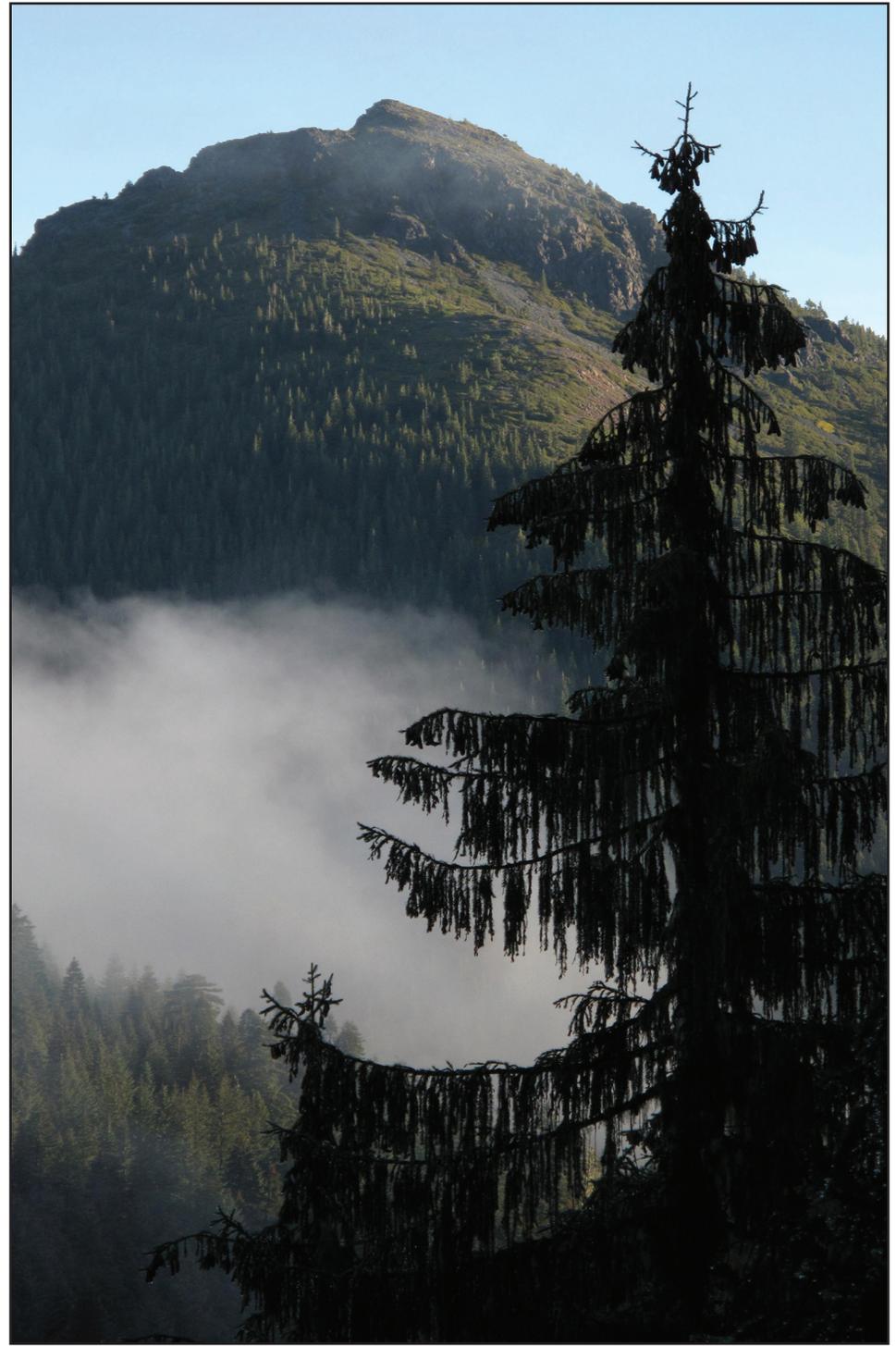
Vol. 29 No. 3

Summer 2012

Red Buttes Layers
in the Klamath Mountains
Photo by Michael Kauffmann



In Pursuit of Pinsapos
Photos by Tom Cox



Brewer Spruce
Photo by Michael Kauffmann

Contents

4 President's Message



6 Editor's Corner: *My Addicted Conifer Syndrome*



9 Developing A Dedicated Dwarf Conifer Garden in North Carolina



14 Come to California Wine Country!



18 In Pursuit of Pinsapos



Contents

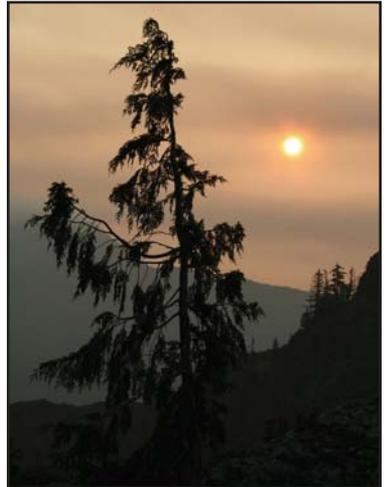
- 24 Reprinted by courtesy of the
British Conifer Society Journal
A Workshop on Conifers in
China and a Visit to the
Mountain Tianmu Shan**



- 32 Hoyt Arboretum**



- 36 Conifer Country: A natural
history and hiking guide to
35 Conifers of the Klamath
Mountain region.**



- 40 Our Dream**





Larix decidua
'Pendula' spring
cones. Photo by
Ann and David
Gunkel.

The purposes of the American Conifer Society are the development, conservation, and propagation of conifers, with an emphasis on those that are dwarf or unusual, standardization of nomenclature, and education of the public.



Conifer Quarterly

Summer 2012
Volume 29, No 3

The *Conifer Quarterly* (ISSN 8755-0490) is published quarterly by the American Conifer Society. The Society is a non-profit organization incorporated under the laws of the Commonwealth of Pennsylvania and is tax exempt under section 501(c)3 of the Internal Revenue Service Code.

You are invited to join our Society. Please address membership and other inquiries to the American Conifer Society National Office, 175 Charisma Lane, Lewisville, NC 27023-9611. Membership: US \$30 (indiv.), \$35 (joint), \$30 (institutional), \$50 (sustaining), \$100 (corporate business) and \$130 (patron). If you are moving, please notify the National Office 4 weeks in advance.

All editorial and advertising matters should be sent to: Ron Elardo, 5749 Hunter Ct., Adrian, MI 49221-2471, (517) 902-7230 or email conifereditor@yahoo.com

Editor
Ronald J. Elardo

Technical Editors
Jerry Belanger
Steven Courtney
Robert Fincham
Ethan Johnson
R. William Thomas

Advisory Committee
Larry Nau, Committee Chair
Sean Callahan
Ronald J. Elardo
Ethan Johnson
Evelyn Cox, past Editor
ex officio: Ellen Kelley
ex officio: John Martin

Copyright © 2012, American Conifer Society. All rights reserved. No material contained herein may be reproduced in any form without prior written permission of the publisher. Opinions expressed by authors and advertisers are not necessarily those of the Society.

Note: Hardiness Zone references in the *Conifer Quarterly* are USDA classifications unless otherwise specified.

Larry Nau succeeded me at the end of the July 12th ACS Board of Directors meeting. Other changes in the Board included Colby Feller becoming the President of the Northeast Region, and Jim Kelley the new President of the Central Region. Many thanks went to Frank Goodhart and Chris Daeger for their service in the aforementioned positions.

The ACS National Meeting in Ann Arbor, Michigan, of July 12th – 14th had a record 297 members registered, and the first Conifer College held on July 12th had 192 members registered. At one ACS Reference Garden, The Harper Conifer Collection of Dwarf and Rare Conifers at Hidden Lake Gardens, attendees were given the chance to vote for their favorite conifers.

Congratulations went to Gary Gee, Stockbridge, Michigan, who received the 2012 Justin C. “Chub” Harper Award of Merit for Development in the Field of Conifers. Attendees of the National Meeting had the pleasure of visiting Gary and Kaye Gee’s family farm on July 14th. Flo Chaffin of Specialty Ornamentals, Watkinsville, Georgia, received our highest honor, the Marvin and Emelie Snyder Award for Dedicated Support of the American Conifer Society. Flo has been a passionate advocate, organizer, recruiter and educator who served on the ACS National Board of Directors.

Reference gardens were first proposed by Larry Nau and have been very successful in the Southeast Region where Barbie Colvin has set the standard for administering the program. In the Northeast Region, the Scott Arboretum of Swarthmore College, Pennsylvania,

is to be the home of a first-class conifer reference garden. In the Central Region, the Bickelhaupt Arboretum in Clinton, Iowa and Powell Gardens in Kingsville, Missouri, just outside Kansas City, are now ACS Reference Gardens. If there is a public garden near you which you believe would be willing to participate in this program, please contact your regional president.

Which conifers have performed best in your area and attracted the most attention? Please send me a list and perhaps an image or two so that I can have the results published in *Conifer Quarterly* and/or on the ACS website.

I also extend many thanks to all who have generously donated plants to ACS auctions. This along with membership dues is a primary source of revenue for the Society. Meeting registration fees are commonly priced to cover costs and realize just a small profit so that attendance can be maximized.

Our *Conifer Quarterly* is the primary benefit of membership. It has been my top priority. Ron Elardo has gone above and beyond his responsibilities

as Editor. For that and the quality of this publication he deserves commendation. The ACS website has not cost the society a penny this year. Bill Barger needs to be recognized for this and for the conifers he donates to ACS auctions. John Martin has been an exemplary colleague, providing history and perspectives well beyond his position as National Office Manager. It only helps that he is married to Sue, who has had the best interests of the Society in mind from its beginnings.

Please consider collecting seed this year and mailing it to Jim Brackman, our ACS Seed Exchange Chairman. Also, if you have any special conifers you wish to promote, Rich Larson, our Conifer Registrar, says it only takes 15 minutes to fill out a cultivar registration form.

Thank you for being a member of the American Conifer Society. It has been a distinct honor to serve you.

Faithfully yours,

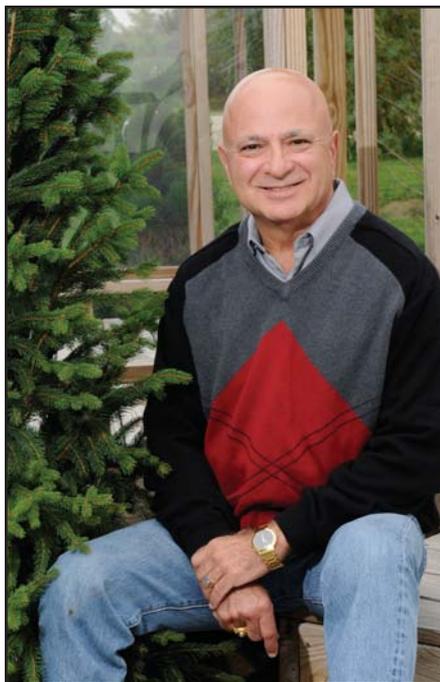


Ethan Johnson



<http://DansDwarfConifers.Etsy.com>

Editor's Corner: My Addicted Conifer Syndrome



It is 6:00 a.m. The sun is coloring the top of my 25' *Abies concolor*. As I watch the solar illumination descend down the spread of the tree, I recall the way in which that tree came to live at my house. It was not a small tree. My ACS was just beginning; in fact, my addiction was merely a year old. The fir's journey from a local nursery to my front yard is anything less than colorful. In that story are the telltale symptoms of ACS which have now gone from wild hunting and collecting to caressing and sniffing.

I am a very tactile person. As we *coniferites* all know, it is the eye

which first reaches out and *touches* the prospective buy. Whether it be the color, the texture, the shape, or even the science behind the specific conifer, once hooked, there is only the balance in our checkbook or the limit on our credit card which will hold us back from acquiring "yet another conifer". Of course, then there is the spousal disapproval, with which we sometimes have to cope.

"Ronald, don't we have enough trees?"

"Ronald, things are getting way too crowded. There are so many."

"Ronald, get that conifer out of there. It's in the way."

"Honey, where shall I move it to?"

"Try putting it in a pot. You've got all those pots in the barn!" (My wife started that whole journey.)

"Ronald, why haven't you planted anything on the back acre?"

"Yikes! What did she say? I can buy more conifers to fill my empty acre? Pinch me. Am I dead?"

Codependency and enabling can lead us to attempt to quench the seemingly unquenchable thirst for "just one more", knowing that all we need do is see another love of our life. As I use you as my enabling collective therapist, I must confess something.

I have failed in my attempt to cure myself of the ACS. Behavioral techniques are not working. I can't just change my venue. I can't go to another room without seeing a conifer out the window. Going outside is no better.

They are all there, watching me, calling me. Even reading a book in my second language German carries me to books on *Nadelgehölze* (conifers). I cannot see the forest for the trees.

No matter where I am, the sight of a conifer will inevitably send my mind racing to answer such questions as:

- 1.) How can I get that one?
- 2.) Where will it go in the landscape?
- 3.) Can I grow it in a decorative pot?
- 4.) What scent and texture does it have?

Notice, I haven't asked myself what its zonal constraints are, or what size it will become, or haven't realized that I am hearing voices and talking to myself. No matter what, I am in it for the long haul.

Abies concolor came to live on my property after a tree I had picked out, a *Taxodium distichum*, to replace a failing *Pinus strobus* 'Pendula', got sold out from under me. Then the guilt-ridden nurseryman made the mistake of telling me to pick out any tree I wanted since his *mea culpa* needed to be satiated. I marched off to his stash, and there it stood, one big honker of a fir. I even got to thinking that they should plant it for free, and they did! Little did I realize that Scarlett O'Hara's exclamation that she would even kill to keep herself and her kin from being hungry had aroused the same Shadow in me, only in the form of getting more conifers at any cost.

"Oh no!" I thought. "My new love for conifers had pushed me over the rational edge." Now I was bargaining in a death-rig with my nurseryman. Oh well.

All told, the number of conifers in my possession is 78. As if numbers weren't bad enough as the physical manifestation of my affliction, I discovered one day the scent of conifers. I was passing a *Juniperus scopulorum* 'Tolleson's Blue

Weeping' when a waft of aroma was carried by a gentle breeze from the tree and into my nostrils. I reached out and gently cradled a cluster of leaves in my hands. I pressed the needles to my nasal passages. I took a deep breath and "Mmmmm. Something of a dusty, almost lemony smell." Then I started going around to my other conifers. Either the base of the cones and their resin or needle clusters touched my olfactory nerves. I particularly like *Cupressus nootkatensis*. It is cedary, but not like cedar wood. It's just "cedary". The scent of the cones of *Pinus koraiensis* is intoxicating. *Pinus leucodermis* smells like freshly cut celery.

Smelling conifers has been added to my repertoire of pleasures surrounding my ACS. I don't believe that I have sunk to bizarre levels of appreciation of conifers. None of the neighbors have said anything to me when they see me sniffing. I have invited my wife to smell the conifers. She can't smell what I smell. I know I am not insane. I'm just addicted.

Ron



THE ENHANCEMENT OF
NATURE'S DEFINITIVE SPACES

WOLF-RUN NURSERY LANDSCAPES

- RARE AND UNUSUAL PLANTS
- EXOTIC CONIFERS

Karen & Mark Priebe

610-779-5717
Toll Free 877-779-5715 29 Klappenthal Road
Fax 610-779-0555 Reading, PA 19606
E-mail: landscapes@wolfrunnursery.com
wolfrunnursery.com

GEE FARMS

Nursery & Landscaping

10 Acres of Container Plants

Conifers, Hosta, Ornamental Grasses, Perennials

10 Acre Arboretum and Water Features

Field Grown Specimens, Grafts

Family Owned since 1849

8:00 am till 8:00 pm - 7 days

Gary, Kaye & Kary Gee

14928 Bunkerhill Rd., Stockbridge, MI 49285

PH: (517) 769-6772 or 1-800-860-BUSH

FAX (517) 769-6204

Visit our Web site @ www.geefarms.com for our plant list

Specializing
in the rare &
unusual



Trees Wanted

Ornamental, Specimen
&
Unique Conifer Trees

Healthy 6-12" caliper material
for Re-Wholesale. Northeast
grown in or out of the
ground, we dig! Individual
pieces or by the lot. Before it
gets too big or you clear cut,
call us!

Contact:

Chris@PlantNJ.com
Phone: 888-752-1100
Fax: 201-785-9181

You are cordially invited to join the

American Rhododendron Society



Annual Subscription of \$40 (USA)
Benefits: quarterly journal,
seed exchange, chapter affiliation,
conventions

Dues may be sent to:
Laura Grant, Executive Director
P.O. Box 525
Niagara Falls, NY 14304-0525 USA

ARS Website:
<http://www.rhododendron.org>

Developing A Dedicated Dwarf Conifer Garden in North Carolina

Text by Charles R. Keith Photos by David Swanson

In 2010 the Charles R. Keith Arboretum, located seven miles northwest of Chapel Hill, North Carolina www.info@keitharboretum.org in Zone 7, was honored to receive the Jean Iseli Memorial Award. The award provided funds to create dedicated dwarf conifer beds.

The focus of the collection in the 25 acre arboretum is on woody temperate species, which now number over four thousand. Over the years, however, we could not pass up lovely dwarf conifers. Therefore, we had planted 191 of them scattered throughout the arboretum at the time of our Iseli application. The

Keith Arboretum also has hundreds of other conifer species and varieties.

Upon receipt of the award, we immediately faced several decisions. First, we decided, with a few exceptions, not to duplicate any dwarf conifers already in our collection. With a list



A view of the established conifer collection.



A 12' *Taiwania cryptomerioides*.



A 10' *Picea morrisonicola*.



New conifer bed on sunny, well-draining slope.



Picea pungens
'Jean Iseli' in
new conifer
bed on partly
sunny, flat
terrain.

of established dwarf varieties in hand, John Monroe of Architectural Trees in Durham, North Carolina and one of our Board members, went to Oregon and hand picked approximately 100 varieties at Iseli, Buchholtz, Stanley and other nurseries for shipment back to North Carolina.

While waiting for the shipments, we selected and prepared two bed sites. One site was on a full sun, well-draining slope where we would plant primarily junipers and pines.

The other site was on flat terrain with good drainage and some shade protection from a *Cedrus libani*, *Juniperus rigida*, and *Pinus densiflora* around its circumference. In the center of this bed is an established 10' *Picea pungens*

'Jean Iseli.' The increased moisture and sun protection of this site would allow planting of dwarf *Chamaecyparis*, *Tsuga*, *Thuja* and *Picea* varieties.

Choosing this latter site presented a problem. On its northern edge stands a beautiful 60' *Cudrania tricuspidata* with unfortunately vicious suckers – and the suckers have thorns! Wise arborists would never have planted it. As happens with other species like *Populus alba*, after 25 years or so in the ground, its suckering tendency is thankfully decreasing. We did not want to cut down the *Cudrania* since the overall mission of the arboretum is maximal species diversity. Thus, we were in a dilemma about constructing a dwarf conifer bed at its base. A compromise was reached by laying down a heavy-duty, woven polypropylene ground cover over the conifer bed area, and then cutting holes in the cloth for planting. Skeptics said the *Cudrania* suckers would punch up through the fabric cloth. Fortunately, no

(Technical Editor's Note: Both Eckenwalder and Farjon relegate *Taiwania flousiana* to synonymy with *Taiwania cryptomerioides*.)

suckers have appeared after two years.

Most disconcerting during the first summer was the loss of several balled and burlapped specimens from Oregon. In spite of careful watering, insufficient root growth before the first summer heat blast took its toll. We also brought in several *Chamaecyparis lawsoniana* varieties which were grafted onto *Phytophthora* root rot resistant *C. lawsoniana* 'DR' rootstock. Alas, all died by the end of year two, but this probably had more to do with the transition from the relatively cool Oregon climate to a hot one than with any root rot issues. (Have others had experience with this rootstock in the Southeast?) Flo Chaffin*, of Georgia, kindly donated *Chamaecyparis lawsoniana* 'Golden Showers' and 'Pembury Blue' grafted onto *Chamaecyparis pisifera* 'Boulevard' rootstock which have done well, so far.

Summer heat is a major issue for conifer collectors in the Southeast. Here in the Piedmont, we have many days over 100°F with high humidity and warm nighttime temperatures. *Abies* species are problematic unless grafted onto heat-tolerant *Abies firma* rootstock. *Abies koreana* 'Silberlocke' grafted onto *A. firma* is the only *Abies* in our new beds. It is not a dwarf in cooler climes, but for us it is a very slow grower. Curiously *Abies balsamea* 'Nana' on its own roots has survived here for 20 years probably because a *Viburnum x carlecephalum* has grown over it providing almost full shade. We are bringing in all the available *Abies* species and grafting them onto *A. firma*. Once this is completed and they are in the ground, we plan to bring in *Abies* dwarf varieties and graft them onto *A. firma*. Currently most *Abies* dwarfs in the U.S.

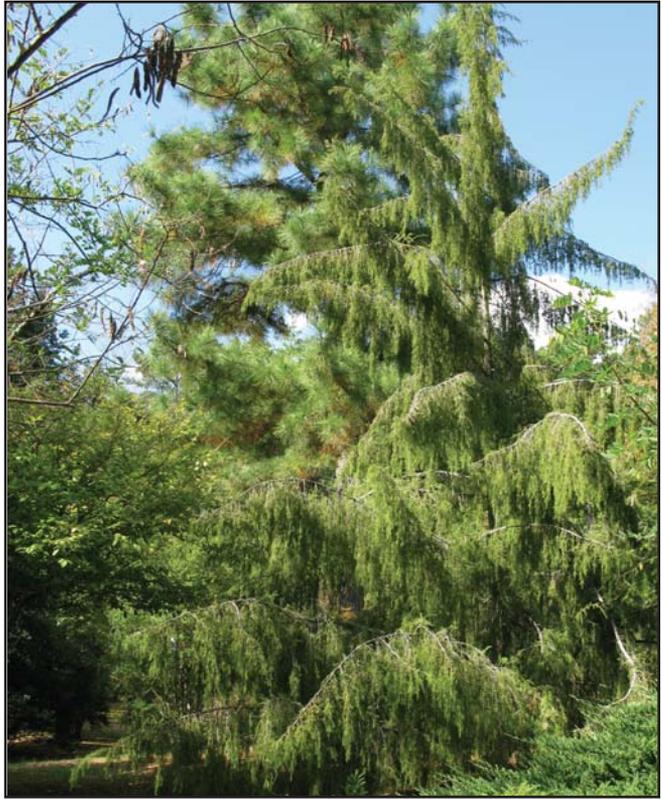


Cedrus libani in new, partly sunny conifer bed.

are grafted onto *A. fraseri*, *balsamea* and Canaan fir rootstock which once again do not survive well here. (Technical Editor's Note: Canaan fir is *Abies balsamea* var. *phanerolepis*.) We should note that some *Abies* species, e.g., *nordmanniana*, *holophylla*, *homolepis*, *bornmuelleriana*, and *pindrow* have, so far, done well on their own roots here.

We are now at the end of year two, and the beds have stabilized with few losses. Among the 40 specimens in the upper sunny bed are: *Pinus pumila* 'Jeddeloh' and 'Glauca', *Pinus sylvestris* 'Burghfield', *Pinus monticola* 'Crawford', *Pinus uncinata* 'Loucky' and *Pinus peuce*

'Mrs. Cesarini'. (Technical Editor's Note: Farjon accepts *Pinus uncinata* as a species but does not accept the infraspecific taxa, and Eckenwalder lists it as *Pinus mugo* subsp. *uncinata* with the var. *rotundata* being relegated to synonymy.) Among the 75 specimens in the sun protected level bed are: *Picea omorika* 'Tremonia' and 'Kamenz,' *Tsuga diversifolia* 'Loowit', *Picea jezoensis* 'Chitosemaru', *Pinus cembra* 'Stricta' and *Pinus pumila* 'Pygmaea' and *Picea engelmannii* 'Compact'. Also in this bed is a long established *Pinus banksiana* 'Uncle Fogy'. Both the type



Large *Juniperis rigida* on edge of the new, partly sunny conifer bed.

and varieties of *P. banksiana* have done well here in spite of the North Carolina heat.

Creation of these display beds has been an exciting learning experience for us, for which we thank the American Conifer Society and Iseli Nursery for so generously matching the funding from the Jean Iseli Memorial Award. We hope others will enjoy them too. Please contact us at: info@Keitharboretum to arrange a visit.

*Many thanks to Flo Chaffin for her generous support and advice throughout this endeavor.

Come to California Wine Country!

Text by Sara Malone Photos by Sara Malone & Janice Le Cocq

When one conjures up images of the California Wine Country, they generally consist of vineyard-covered hillsides interspersed with olive groves and boutique farms. People flock here from all over the world to sample the award-winning wines and gourmet food while enjoying the mild climate and beautiful scenery. Who would suspect that lurking behind these hedonistic images are fabulous conifer collections and botanically important gardens? A clue might lie in the fact that California has two state trees and they are BOTH conifers: *Sequoia sempervirens* (coast redwood) and *Sequoiadendron giganteum* (giant sequoia).

Because of the inspiring combination of scenic beauty, diversity of activities and spots rich in historical and worldwide botanical renown, the ACS Western Region has decided to break with tradition and hold its 2012 conference October 19th and 20th in Sonoma County, California, where the weather is mild, and the fall colors will be nearing their peak. We invite ACS members from all regions to join us in this wonderful opportunity to share conifer lore with fellow members, see significant gardens and learn from some great presenters. Sonoma County, although almost entirely in USDA zone 9b, has four separate sunset climate zones, and the gardens we will visit are each in distinct microclimates with differing exposure and soil conditions. This diversity within a relatively small area (Sonoma is only

about 1500 square miles) makes touring the gardens a particularly interesting experience, as one can observe the same or similar plants growing differently in each garden.

Our garden visits are planned so that we will have time to linger and appreciate the plantings and understand each garden's background and history. This not only allows for more in-depth experiences but also minimizes bus time! At Quarryhill, Western Hills and Circle Oak, conference participants will have ample time to converse with folks intimately concerned with the making of each garden, its evolution and its care. We will learn about how the gardens began, were laid out and how specimens were selected, placed and nurtured.

Quarryhill Botanical Garden

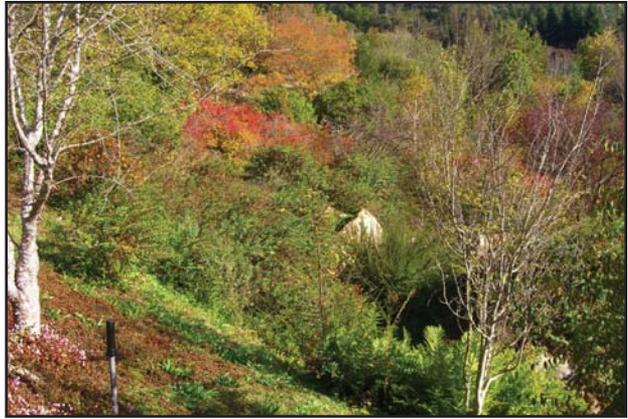
Most noteworthy for conifer lovers in our lineup is Quarryhill Botanical Gardens, a research-oriented garden home to one of the largest collections of scientifically documented, wild-source Asian plants in North America and Europe. Many represent ancestors of horticultural favorites found throughout the western world, and a significant number of them are conifers!

Tucked into and around an old rock quarry in Glen Ellen, Quarryhill was founded by Jane Davenport Jansen, who funded seed collecting expeditions to Asia in the late 1980's and early '90's, in partnership with the Royal Botanic Gardens, Kew and the Howick

Arboretum. Those expeditions were so successful that planting began in the early 1990's and today visitors can see towering *Pinus yunnanensis*, *Cupressus funebris* and *Pinus roxburghii*, among many other species, all planted from wild-collected seed. Many of the plants grown at Quarryhill are, today, extremely rare and endangered in the wild, as the countries where they originate are either uninterested in protecting their native flora or lack funds or support to do so. Quarryhill is increasingly playing an important part in developing *ex situ* programs to regenerate and then reintroduce threatened species. In fact, Quarryhill has recently been recognized by two major worldwide surveys of conservation efforts, ranking in the top 10 in both, with such heady competition as Kew, Arnold (Harvard) and the like. As of this writing, we expect to be escorted on our tour by Bill McNamara, the garden's Executive Director, who led the early collecting trips and brings a personal connection and level of detail to the visitors' experience which makes us feel as if we are part of the effort.

Some of the special sights for conifer lovers include a *Xanthocyparis vietnamensis*, the most recently discovered conifer species (just featured in the spring 2012 *CQ*). For those of you who have only seen this in photos, now is your chance to observe one up close and personal. Another unusual specimen is *Fokienia hodginsii*, grown from seed collected in China. It is extremely rare

and now almost impossible to find in the wild. An interesting aspect of viewing the multiple specimens at Quarryhill is that they were almost all grown from seed so that there is more individual variation amongst the plants of the same species than one sees in many settings. For example, each *Cupressus funebris* specimen seems to have a noticeably unique shape. It is fun to see the



Quarryhill Botanical Garden Fall Color. Photo by Sara Malone

distinguishing characteristics amongst seedlings of the same species. We'll have ample time to enjoy and observe as we will have lunch here on the patio, as well as tour the garden.

Western Hills Garden

Another significant garden on our program is Western Hills in Occidental, six miles east of the Pacific Ocean, a three-acre plot surrounded by second-growth redwood, Douglas fir and madrone forest. Occidental experiences more marine influence than Quarryhill, and the microclimate is milder. Western Hills began as the private garden of Marshall Olbrich and Lester Hawkins, who settled here in the early 1960s and

proceeded to collect seeds and plants from all over the world, many from other Mediterranean climates such as South Africa, Chile and Australia. They opened a nursery in 1972, which became a mecca for those seeking rare and unusual plants. Hawkins and Olbrich were ably succeeded after their deaths by close friend Maggie Wych, who put the garden and nursery up for sale in 2005. It fell on hard times when the new owners, unable to keep it going, lost it to foreclosure.

Chris and Tim Szybalski (for Oregon nursery buffs, Tim's cousin is Cistus Nursery owner Sean Hogan, who we hope will be leading our tour of the garden!) rescued the property from neglect in 2010 and have, with the help of the Garden Conservancy, Maggie and other dedicated volunteers, repaired, rejuvenated and re-visioned this important horticultural landmark. Garden manager Stacie Miller emphasizes that the new owners' intention is to continue to make the garden a place of education and they look forward to the days when the garden is again a destination for serious gardeners and plant collectors.

Garden writer Wayne Winterrowd wrote in *Horticulture* in 2005 that "from around 1970 to the present, no garden in North America has had a greater influence than Western Hills". He called it not just a garden and nursery but a 'trove of knowledge'. *The New York Times* once called it the "Tiffany" of plants! As of now Western Hills is only open by appointment, and we are lucky to have the opportunity to see some of the wonderful specimens which Marshall and Lester collected. Among the conifers are an enormous *Pinus pseudostrobus* var. *apulcensis*, which

towers over a *Picea smithiana*. A 70' tall *Taiwania cryptomerioides* graces another part of the garden. There are different species of *Taxodium*, including a 100' tall *T. distichum* growing not in the pond, but in the middle of a meadow! October should find the garden in splendid fall color, and we will wander the paths reminding ourselves that many of the garden's largest specimens started there as tiny seedlings.

The Gardens at Cornerstone

In addition to Quarryhill and Western Hills, we will be visiting The Gardens at CornerStone, the first 'gallery-like' gardens in the U.S. A series of walk-through gardens on the property showcases new and innovative designs from the world's finest landscape designers and architects and, in the words of founder Chris Hougie, "range from the traditional to modern, conceptual installations". It is featured in *1001 Gardens to See Before You Die* (as is Quarryhill). The installations change periodically, but currently feature works of such luminaries as John Greenlee and James Van Sweden.

Circle Oak Ranch

We will also visit the author's gardens at Circle Oak Ranch (see the spring *CQ*) and have lunch on the patio. Circle Oak's garden was begun in 1997 and features over 200 varieties of conifers, from miniature varieties to straight species, in every color imaginable. Designed as a foliage garden, the emphasis is on woody plants, and the conifers coexist happily with California natives, plants from the Southern hemisphere and those from the Mediterranean region, as well as a large and diverse collection of Japanese



The Malone home.
Photo by
Janice Le Cocq

maples, which should be in glorious autumn color. The challenge with this large property, which used to be part of a dairy farm, was to create harmony and cohesiveness while showcasing the many specimen plantings. Welcoming visitors to Circle Oak is a large *Cedrus atlantica* 'Glauca Pendula' over the entry sign and two more flanking the front door of the house. The garden includes many interesting conifer cultivars, including a host of *Chamaecyparis lawsoniana*, such as 'Imbricata Pendula', 'Golden Showers' and 'Barry's Silver', several *Pinus parviflora* including 'Cleary', 'Ogon-i-anome' and 'Shion' and many *Picea abies* specimens, among others.

And there's more!

In addition to the wonderful gardens on our program, we are delighted that Kathy Musial, Collections Manager and a Curator and 30-year veteran of the Huntington Gardens in Southern California will be our keynote speaker. She will speak about her experiences accompanying Zsolt Debreczy and

Istvan Racz on their fieldwork in Chile, Taiwan, Japan, New Zealand and Australia preceding the publication of their *Conifers Around the World*. We'll find out how the publishing adventure was almost as hair-raising as some of the fieldwork!

We'll be staying at a lovely Sheraton, situated in a bird sanctuary on the banks of the Petaluma River. A wine-tasting is scheduled at world-famous Chateau St. Jean Winery, with beautiful gardens and grounds which can be enjoyed by tasters and non-tasters alike. We'll have dinner at a riverside micro-brew pub with award-winning beers and food, and there is a sumptuous list of optional activities, nurseries and gardens to visit for those who want to linger for a few more days and really make a vacation of the trip. There will of course be the ever-popular silent and live plant auctions, which will feature the usual wide selection of rare and desirable conifers. Refer to the insert in this issue of the *CQ* for specific details about the agenda, lodging and timing. We hope to see you there!

In Pursuit of Pinsapos

Text and photos by Tom Cox

Fulfilling a promise to my wife Evelyn, in December 2011 we traveled to Spain for the first time. Given it was December; we elected to visit the region of Andalusia in the southern portion of the Iberian Peninsula. This region shares a three-quarter mile land border with the small British territory of Gibraltar and is bounded by both the Atlantic Ocean and Mediterranean Sea.



Pinus pinea Strait of Gibraltar

While this would likely be one of the warmest areas of Spain, it was no coincidence that the region is also home to the only known naturally occurring populations of Spanish fir (*Abies pinsapo*). Prior to departing I learned that *A. pinsapo* is Andalusia's national tree and that visits to see them are quite restricted. They only occur in the wild in three locations and are found growing on the northern slopes of steep mountains at altitudes of 3,300 to 5,900' (1,000-1,800 m). An exhaustive

search on the internet turned up several adventure travel sites which offered tours and a website for the city named El Bosque, where we could obtain permits to visit on our own. Assuming we would be able to find these trees, the latter option was the adventure I had hoped for. The personal pronoun "I" is used here to make the point that Evelyn would have much preferred sightseeing in a historic town such as Cadiz instead of hiking up some uncharted mountain in the middle of nowhere.

In a further effort to get some sense of where to begin our exploration, a few days before we were to leave our hotel, I e-mailed Dan Luscombe with the Bedgebury Pinetum in Kent, England, who I knew had botanized in the region. His e-mail reply contained grid coordinates and several obscure references such as "when you get to the 3rd tee in the road turn left and then follow a narrow trail until you get to a large oak tree..." These guys who do this for a living have a different set of reference points from us neophytes. We also have a conifer friend, Mr. Luis Baste, who resides in Barcelona. While he had never visited the Pinsapos he suggested we restrict our search area to the Sierra de Grazalema Natural Park.

Day 1 December 2nd – Drove from

Rota to town of El Bosque on mostly narrow two-lane roads. Aside from the misery of driving through the town of Jerez de la Frontera with all its traffic circles and confusing signs, the drive was quite scenic and devoid of heavy traffic. We arrived in El Bosque, and, after lunch, found the government office responsible for issuing tourist permits to the area where we would search. It was at this



Pinus pinea

point I learned of a custom that I could not understand – everything shuts down at 2:00 pm for siesta and does not open again until 4:00 pm. I was told it was because of the afternoon heat, but this was December and it started to get dark around 5:00. To fill some time we drove to a botanical garden, but it too was closed for siesta.

We reluctantly waited until they re-opened and luckily had a nice young gentleman help us who spoke fairly good English. We were hoping to start our trek the next morning, but were told we would have to come back on Monday and go to another location to receive our permit. On the positive side, he supplied us with a trail map where he marked the trees' approximate location. He appeared reassuring that, if we were willing to take an approximate three hour hike, we would find the Pinsapos. While we had a long drive back to Rota in the dark, we were making progress.

Day 2 Monday December 5th – After spending the night in the non-descript town of Ubrique, we departed our hotel early and arrived at the location where we were finally going to receive our permit. As the young man had promised, it was completed and we headed towards the town of Grazalema.

Just prior to descending into the town, we took a junction road which led us up a steep mountain. This was to be one of the highlights of the trip as the rugged mist-shrouded mountains appeared at various levels as far as the eye could see. Their backdrop was a clear blue sky. All around were Italian stone pines (*Pinus pinea*) -- each appearing to have been perfectly sheared like giant mushrooms.

The stone pines are not native to this region, but had taken hold as a part of the region's reforestation program. Scattered amongst these were evergreen oaks of the species *Quercus ilex* (Holm oak) and *Q. lusitanica* (Gall Oak), as well as an occasional Aleppo pine (*Pinus halepensis*). As I have discovered in my travels, the occurrence of pine species is based in part on elevation. We would not encounter the third species (*P. pinaster*) until we were much higher up – it being the more cold hardy species.

After missing our turn out where we were supposed to park, we continued to drive up the mountain until it became clear on our trail map that we had missed our spot. We doubled back and found the parking area where there was a gate with a "Restricted Entry" sign. Once inside, we found ourselves on a narrow trail where we would immediately start



Trail leading to Pinsapos

our ascent.

The good news was that there was only one trail, but absolutely no signs. After about a 1/2 hour walk, we came to a series of fires which were deliberately set as workers thinned stands of *Pinus pinaster*. Seeing that these posed no imminent danger, we climbed over and



Workers clearing *Pinus pinaster*

around fallen trees and continued on. The workers appeared surprised to see two people in this remote area. I mentioned Pinsapos and they pointed up the mountain, which meant we were getting closer. Finally after about two hours we could see the tree-line, but no Pinsapos in sight. Next we found ourselves on

the top of the tree-less mountain with only alpine plants at our feet. Here one could virtually experience a 360 degree panorama of these marvelous mountains – not a cloud in the sky.

As we started our descent on the eastern side, the wind picked up and it became noticeably colder. We would continue for another thirty minutes, mostly remaining on the edge of the tree line. Then magically on the northern slope of this massive mountain was a distant grove of mature Pinsapos. As we got closer, we began to notice the subtle color variations ranging from rich green to silvery grey, to light yellow---nature's coloring box. These trees appeared healthy with a Christmas tree form, and I would estimate there were several hundred in



Abies pinsapo on north slope

this grove. It became obvious that, unlike the three species of pines we encountered which occurred in scattered locations, *Abies pinsapo* is very site-specific (north slope, high precipitation and cool nights).

While the soil here is limestone based, I am told that the tree does equally well in more acidic conditions. At the tree-line we saw several dwarf forms, but this was likely an artifact of where they were growing, which caused them to be stunted as opposed to candidates for cuttings.



Evelyn looking at *Abies pinsapo* above the tree line.

Now it was time to say *adios* to these ancient trees. We were all alone up here with the luxury of having all this grandeur to ourselves. I could tell that Evelyn was glad she made the trip.

Looking back some 20 years ago when we were just starting the arboretum, I naively ordered a Spanish fir from a west coast nursery. As I recall, it was in a 15 gallon container and was expensive. My rationale was that since Spain was a warm country, it would adapt well here in Georgia. It lasted about as long as a popsicle lying on our driveway in July. Now seeing where these grow offers some clue as to why. We currently have several small *A. pinsapo* cultivars which are grafted onto *Abies nordmanniana* rootstock. These have survived for four years and have shown good vigor.



Juniperus oxycedrus

About the Region: Designated a UNESCO Biosphere reserve in 1977, the Sierra de Grazalema was declared the first natural park in Andalusia in 1984 and is one of Spain's most ecologically outstanding areas. The region is well-known for being the rainiest place in Spain, with an annual rainfall of around 87 inches (2,200mm).

Dotted around the area are attractive pueblos blancos (white villages), the ones in the most dramatic setting being Grazalema, which nestles between the two rugged peaks of Pico del Reloj and the Pico de San Cristóbal, Arcos de la Frontera and Ronda, the birthplace of bullfighting. The combination of high seasonal rainfall and mainly limestone rock creates an amazing landscape and an area well worth visiting.

While the region would not be considered prosperous, the people are friendly, and the small white villages are a picture postcard. It is not at all touristy, and English is not common. We managed to get by, and the locals appreciate any attempt to speak their language.

About *Abies pinsapo*: Spanish fir (*Abies pinsapo* var. *pinsapo*) is only found in three rather small forests in southwest Spain. This species once covered large areas of southern Spain, but over the centuries has slowly receded into its current habitat. There also is a variety which occurs in the Rif Mountains of Morocco named *A. pinsapo* var. *marocana*. Both varieties can grow in different soils, but require the coolness and precipitation of northerly facing slopes at high altitude, which strictly limits any natural expansion. *A. pinsapo* is distinct among firs in that its needles are arranged radially – never in two-rows. Only *A. numidica* (Algerian

fir) have similar needle set. The two most common cultivars one is likely to encounter are 'Aurea' and 'Glauca'. In areas such as Oregon where they can thrive, these selections are as good as it gets. Occasionally, one encounters dwarf selections such as 'Horstman', 'Turek' and 'Fatima' -- all are "stand-out" plants.

Footnote:

After returning, I received the following e-mail from long time ACS member Don Howse, who in my opinion is one of our real conifer experts in the Society. With his permission, I include it in this article as I believe his recounting of his experience in the region will be of interest to you.

Your photos of the Pinsapos near Grazalema provided fond memories for me. In the fall of 2001 after our trip to Northern Pakistan had been cut short, due to 9/11, our band of 5 intrepid plant enthusiasts (Robert and Rochelle Watch from Australia, Panyotti Kelaidis and Dan Johnson from Denver Botanic Garden, and myself) decided to try to go somewhere else to visit, and collect plant seeds. We chose Andalusia for the final 2 weeks of our planned time away. We landed in Malaga and rented a 7-passenger van. Then took off for points unknown throughout the province. First we stayed in Casabermeja and explored the surrounding coastal area. We then went to Sierra Nevada and found a resort hotel along the road up the mountain, not far from Grenada and the Alhambra. Of course, we enjoyed those historic sites. We did spend time hiking up the trails near the top of Sierra Nevada. Not many conifers up there, but lots of interesting cushion perennial plants. I did find a large patch of prostrate *Juniperus communis* which was yellow/gold in color on the upper slopes. The Pinsapos and other conifers were of course all planted in neat rows on the lower slopes. We then moved on to the town of Baeza, where we stayed for a few days. We explored the various mountain areas surrounding Baeza, including the Sierra Magina. We then moved to the resort town of Cazorla. From there we had access to Sierra Cazorla National Park. In the park we found several witch's broom in the *Pinus nigra* trees, and I also found a

variegated one. From Cazorla we traveled to Cordoba, Medina al-zahara, Olivera, and then to Grazalema where we settled in for a brief stay. We were unable to get tickets to make the hike up to the Pinsapos, but drove the road to the top of the pass and viewed them from a distance. We also searched for the grove of old Pinsapos near Rhoda. Finally, we drove down to Estapona on the Costa del Sol and stayed there our last few days. We knew of the 3 sites for *Abies pinsapo*, and still wanted to get closer. From town we could see a reddish mountain and it had evergreen trees at the top. It also had a microwave station with a road leading up to the top, so we decided to go exploring.

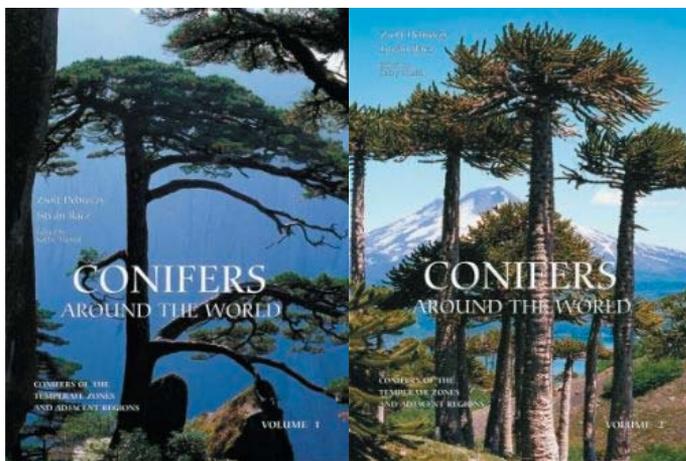
We found ourselves at the top of Sierra Reales, (Mountain of the Royals), a volcanic mountain (among limestone mountains), hence the reddish color. At a rest stop along the road, at an elevation of about 4,500', we found a memorial to the famous European Botanist Edmund Bossier, and trails leading up to the top of the peak. Not far up the trail we found ourselves in an old growth *Abies pinsapo* forest. There were no permits needed to hike, nor any barricades. The top of the mountain was totally accessible and amazing, with old, broad, spreading trees. They were affected by the marine wind currents coming from the Strait of Gibraltar and the Atlantic. They were very old trees with massive trunks. From the top we could look down onto the Rock of Gibraltar and the strait, and even see the coast of Africa in the distance. It was a most memorable experience for me. On the way down the mountain we found a marker (La Paz de Pinsapos) leading to a trail head. The trail went up a ravine on the north side of the peak, which was full of old *Abies pinsapo* trees which were very tall and statuesque, quite different from those at the summit. It was interesting to note that there were not cones anywhere to be seen in either location. I am sure they had been collected by crews, probably to gather seed for planting forests elsewhere in Spain, or to sell to seed purveyors elsewhere. We searched high and low for a cone or any seed, but could not find any, to my disappointment.

References:

<http://en.wikipedia.org/wiki/Andalusia>

<http://www.andalucia.com/environment/protect/grazalema.htm>

Conifers Around the World
Conifers of the Temperate Zones and Adjacent Regions
Zsolt Debreczy and István Rácz



Conifers Around the World (CAW) presents temperate conifers by geographical region, offering an account of their natural distribution showing their characters as they appear in natural habitats.

CAW's two hardcover volumes (9 x 12") offer the reader over 3700 color photographs in 1089 pages, including:

- An in-depth, richly illustrated introduction to conifer conservation, classification, morphology, climate, and distribution
- A 44-page chapter on the 7 conifer families and 56 genera discussed in the book, including 1300 detail drawings and 6 pages of illustrations depicting pollen cones from each genus
- The **species plates** covering 450 species/541 taxa, arranged geographically into 11 regions
- 175 **habitat photographs** showing the most representative and picturesque conifer habitats on six continents
- 474 **distribution maps** showing the natural range of each taxon
- A **Bark Gallery** with 646 color photographs taken in habitat

Here's what they're saying:

"Having had the honor to review almost all recent books, I must say that this is my new 'go to' source. It is rare for me to receive a publication that lives up to its billing but *Conifers Around The World* exceeded all expectations." Tom Cox, former president, American Conifer Society. **See Tom's review of CAW in the Spring 2012 issue of the Conifer Quarterly.**

Purchase supports the Dendrological Atlas Project and the Dendrological Documentation Project.

US sales of this publication support the International Dendrological Research Institute, Inc., a Massachusetts-based nonprofit organization; global sales support the International Dendrological Foundation, Hungary. Both organizations provide funding to produce the botanical illustrations for the proposed *Dendrological Atlas* Vol. 1-4.

<http://conifersaroundtheworld.com/>

<http://www.interdendro.org/>

<http://www.dendrologia.eu/>

PRICE: \$250 (purchase is not tax-deductible) + \$17 shipping within the US / \$40 to Canada & Mexico

15% discount to American Conifer Society members

To order by credit card (PayPal), go to www.interdendro.org. American Conifer Society members use coupon code ACSMEMBER for 15% discount (\$212.50 +shipping). Please note "ACS/CQ" with order.

OR send check (US customers only) made out to IDRI for \$229.50 to IDRI, P.O. Box 812910, Wellesley, MA 02482.

Please include your name and shipping address. For more than one copy, please inquire to info@interdendro.org.

Canada/Mexico customers: credit card orders only.

Reprinted by courtesy of the *British Conifer Society Journal* **A Workshop on Conifers in China and a Visit to the Mountain Tianmu Shan**

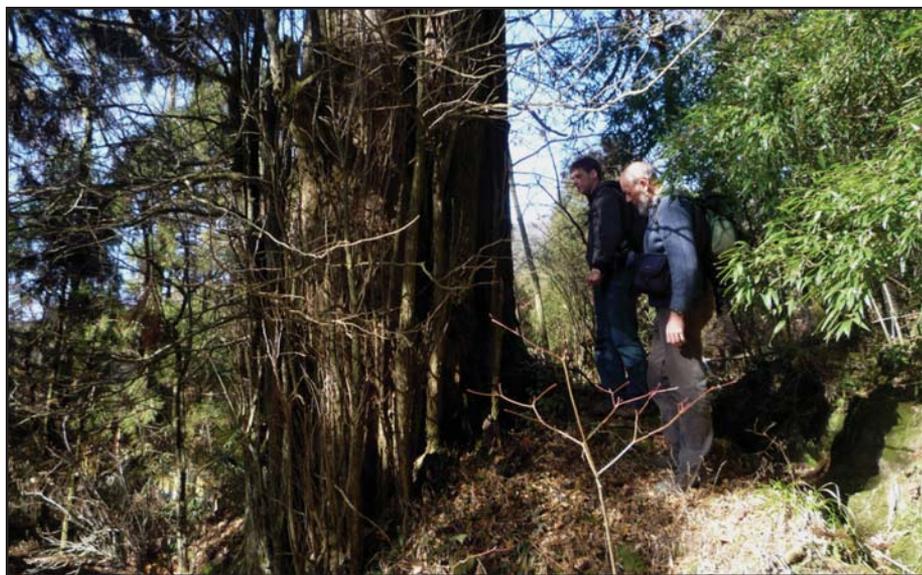
by Aljos Farjon & Daniel Luscombe

In December 2010 we went to China for a workshop on the conservation of conifers in China and neighbouring countries. This workshop, which lasted a week, was planned by Aljos as the Chair of IUCN's Conifer Specialist Group (CSG) and generously hosted by the Fairy Lake Botanical Garden, in Shenzhen, Guangdong Province. Prior to the meeting, an excursion was made to the mountain Tianmu Shan, near the city of Hangzhou in Zhejiang Province. Aljos explains something about the workshop and its aims first, but then we concentrate on our excursion to the

mountain, where we saw, among other species, *Pseudolarix amabilis* and, though not a conifer taxonomically, what may be the only wild trees in the world of *Ginkgo biloba*.

The workshop

The International Union for the Conservation of Nature (IUCN) compiles and maintains the IUCN Red List of Threatened Species™, which is updated annually [1]. This list contains all conifers, with their conservation status as defined by IUCN categories and criteria, and assessed by the Conifer



Dan Luscombe (far) and Keith Rushforth (near) inspect a non-planted ginkgo tree

Specialist Group (CSG), a sub-committee within the IUCN's Species Survival Committee (SSC). The current 2010.4 version of the Red List contains the status of conifers as assessed in 1998, with a small proportion (10%) of later dates. Every 10 years or so a reassessment is required, and this task is now being undertaken. It is planned to be completed at the end of 2011. A 'workshop in the region' is one way in which IUCN-SSC tackles the issue of consultation, as with a bit of good organisation it is possible to draw regional expertise together and to resolve differences. We were very lucky that our Chinese hosts were able to take on all the logistics of bringing together about 15 people from China, Europe (the U.K.), Japan and New Zealand, and to organise the excellent venue and even the excursion, by aircraft and minibus, to that special mountain in Zhejiang. They took care of most of the expenses, too, and we are enormously grateful for their organisational skills and generous hospitality. Dr. Li Nan of the Fairy Lake Botanical Garden, whom I knew from previous visits to China, co-ordinated this very ably; we owe her special thanks for a successful event.

We were able to assess for the Red List about 180 species, *i.e.* all species of China, Japan, Korea and a few others from the eastern Himalaya and from New Zealand (the latter because we had Glen Carter, our member of the CSG from Auckland Botanic Garden, participating).

The procedure is quite formal these days, much more so than in 1998, with a standard and detailed questionnaire to be filled in for each taxon (species, sub-species and varieties) following a set of criteria for the conservation status, ranging from 'Least Concern' to

'Extinct'. I am happy to report that no conifer is at present considered extinct, although one, *Thuja sutchuenensis* from central China, was considered 'extinct in the wild' in 1998, but has since been found again (see the article in Journal 13 [2]), and quite a few are 'Least Concern'.

The three categories of threat are, with increasing concern, 'Vulnerable', 'Endangered' and 'Critically Endangered' and many of the taxa that we assessed fell into one of these. By working in small groups from the second day, we made good progress. This was despite the unhappy circumstance that a bout of 'flu' sent some participants to bed for a day or two, breaking the ranks here and there. We ended the meeting with a farewell dinner hosted by both the outgoing and incoming Directors of Fairy Lake Botanical Garden and, on the final morning before we flew back from Hong Kong (which is just across the water from Shenzhen), a traditional Chinese tea ceremony for the 'westerners' in the workshop, seated in a wooden-terraced building at the Fairy Lake's shore and sheltered from the hustle and bustle of the boom city by steep, wooded mountainsides. The assessments have now been edited and verified for correct application of the criteria, the latter responsibility assumed by Philip Thomas at the Royal Botanic Garden Edinburgh. An important task still ahead for the CSG is to compare the two assessment periods and analyse the changes in the conservation status of conifers. Have more conifers moved into the categories of threat than before? Are the changes genuine or are they the result of better information? Of course, there are all the other 400-plus species to assess, many of which have already

been done since the workshop. Perhaps there will be an opportunity to report on the final results in a later issue of this journal.

Tianmu Shan

Along with a small party of workshop participants who had arrived in Shenzhen on the evening of 7th December, we flew the following day to Hangzhou, a city in Zhejiang Province, eastern China. At the airport we were met by Dr. Zhang Deshun (Shanghai Chensan Botanic Gardens) who had arranged our excursion to the mountain, as well as some other visits such as to the botanic gardens of Hangzhou and West Lake, both with interesting trees. On the ninth, we travelled by minibus to our main destination, about 83km west of the city, arriving in the early evening at a guesthouse near the ancient Chanyuan temple, built during the Ming Dynasty around 1425, at the base of the mountain. This temple is famous for its large planted ginkgo trees, but its premises were closed during our visit.

Tianmu Shan in Chinese, or “Eyes on Heaven Mountain”, is the final mountain (30° 21’ N 119° 25’ E) in a range of the same name that stretches west-south-west to east-north-east in north-western Zhejiang Province. It has two summits, West Tianmu Peak (Xianren, 1,506m) and East Tianmu Peak (Daxian, 1,480m). The north-western part of the mountain is a UNESCO [3] Biosphere Reserve known as the Tianmu Mountain National Nature Reserve. The “eyes on heaven” refer to permanent ponds near the two summits. The rock is igneous and metamorphic and, while the mountain slopes are well forested, precipitous cliffs expose the acidic bedrock in several places. This mountain

range lies at the northern limit of the subtropical climate zone, with marked differences in flora between the lower and higher elevations. The forest on the mountain comprises mainly deciduous broadleaves (angiosperms, or flowering plants) with a scattering of conifers (when not introduced or planted), one of which, *Pseudolarix amabilis*, is also deciduous, as well as the ginkgo. It being December, we were too late to see the spectacular yellow autumn foliage displayed by these two gymnosperms, and both trees turned out to be completely bare.

A short walk up a road (30° 19’ N 119° 26’ E, altitude circa 400m) in the evening, before dark, took us into forest dominated by planted *Cryptomeria japonica*, interspersed with native trees and patches of giant bamboo (*Phyllostachys pubescens*). Among the native conifers on these lower slopes of the mountain, we spotted *Fokienia hodginsii* (only saplings and small trees), *Pseudotsuga sinensis* (possibly var. *gaussenii*) and *Torreya grandis*. There was also a fairly large ginkgo (*Ginkgo biloba*) growing from a steep rockside along a periodically flooding stream. It is unlikely to have been planted in such a spot, but could it be a natural seedling from one of the planted trees in the temple? We noted that *Cryptomeria* regenerates spontaneously on steep road banks. Some of their parent trees were large, with a diameter at breast height (dbh) in excess of three metres, and were probably planted in the 17th century. When these trees die (some were already dead snags) and no further planting is done, will future researchers recognise the provenance of their descendants, which will, by then, be large, apparently “natural” or “wild” trees?

The following morning, 10th



The tessellated bark on this large specimen of *Pseudolarix amabilis* is not yet seen in cultivation

December, a minibus took us around the mountain and up the other side to West Tianmu Peak and the Tianmu Mountain National Nature Reserve (30° 21' N 119° 26' E, where the average altitude is 1,100m). There is a well-maintained network of stone paths and steps, evidently built many years ago, and here and there a shelter or pavilion where walkers can rest. Again, the dominant trees were *Cryptomeria japonica* (especially along the paths), some of which were even larger than those we had seen lower on the mountain. The biggest in circumference, marked by a Chinese sign as the “Giant Tree King”, is now a mere barkless stump, its bark stripped by generations of pilgrims who believed that it was a cure for leukemia; people can easily love a tree to death. Of more interest to us were the native trees, and especially the conifers and ginkgo. A pine that we encountered in the early part of the walk was pointed out to us by our guide, Dr. Yunpeng Zhao of Zhejiang University in Hangzhou, as *Pinus taiwanensis*. Here, barely 200m into the nature reserve, we encountered one of the differences that can sometimes arise between specialists in the taxonomic treatment of closely related taxa. In the Flora of China [4], the Chinese authors include a pine on the mainland within the taxon *P. taiwanensis*, whilst Robert Mill, the co-author of the section on the family *Pinaceae* in the Flora, added a footnote to the effect that this species would be better considered endemic in Taiwan, while the mainland pine should be named *Pinus hwangshanensis*. The morphological distinctions are small, being mainly in the prickles (or their absence) on the seed cone scales. Aljos Farjon concurs with Robert Mill and so, according to his books [5,6], the pine

we now saw was *P. hwangshanensis*, not *P. taiwanensis*. We did not dwell on this issue long, however, but moved on down the main path in search of more exciting conifers.

Not much further on, we saw the first large trees of *Pseudolarix amabilis*. As mentioned, they were totally bare of leaves and we saw no cones on the trees, only a few scales on the ground below them. The first thing that was striking was how tall and straight they are here. In cultivation in Europe and the U.S.A., this tree is uncommon, although not really rare, and large trees are few. Even the largest are not nearly the size of these trees, and certainly not as tall and straight. The second surprise was the tessellated bark. Even the thickest trees at the Arnold Arboretum in Massachusetts, U.S.A., at about 80cm dbh, have a grooved and plated bark, but

not tessellated like this; perhaps they are still young trees in comparison.

We were assured that the tallest tree of this species measured here was 76m high, but it was difficult for us to verify by eye because that particular tree grows on a very steep slope and our vantage point was a platform from which we could not see its base. Nevertheless, in excess of 60m was certainly a good estimate for the height of more than one tree in this area, so it was entirely plausible. Their crowns were often rather small or narrow, or one-sided due to competition from nearby trees. *Pseudolarix* is a monotypic genus (there is only a single species) in the *Pinaceae*, which, despite its name, is now known not to be closely related to *Larix*, even though it shares its characteristics of short shoots and deciduous leaves (needles). Unlike *Larix*, its cones disintegrate



Dan Luscombe looking at *Cephalotaxus fortunei* foliage

when ripening, although they may stay on the tree for some time, as we saw later on some planted trees on another mountain. Their structure more closely resembles the cones of *Keteleeria*, another conifer genus found in China.

Pseudolarix is known from the fossil record in Europe and North America and once, in the Eocene, had a very wide distribution reaching to the far north of the Arctic Circle. The Eocene (56-34 million years ago) was so mild that there were no polar icecaps. With the cooling of the global climate, the genus retreated from northern latitudes, eventually became extinct in North America, Europe and most of Asia, and only survived in China. There it is now also rare in the wild, although we saw these trees planted in a forestry context later. As with several other conifers in China, it is uncertain in how many places it still occurs naturally, without having been introduced or re-introduced by the holy men of Buddhism or Taoism. This mountain, Tianmu Shan, is the undisputed site of a truly wild population, and we were excited to see it in good health, including seedlings and saplings under the giant trees.

Also present here is *Ginkgo biloba*. We treat this famous tree here as an 'honorary conifer' because it is such a 'lonely' gymnosperm that it needs to be adopted sometimes. Unlike the conifers, it arose from an ancestor among the 'pteridosperms' or 'seed ferns', an extinct assembly of not necessarily related gymnosperms with leaves similar to ferns but with seeds attached to them rather than spores. Probably the Peltaspermales, an order of these, contained the ancestor of the ginkgo. Indeed, the leaves of *Ginkgo biloba* are similar, in shape at least, to the leaflets of the fronds of the small rock fern *Adiantum capillus-*

veneris (Maidenhair fern), rare in Britain but common in southern Europe.

The wood of the tree, however, is conifer-like in that it has secondary concentric growths of layers of tracheids producing continuous wood, not just irregular strands as in some tree ferns and especially cycads. With cycads, however, it shares the peculiar motile sperm that swims with the aid of microscopic hairs, which reminds us of a fern-like ancestry. A true oddity of evolutionary survival, then, which is unique in the classification of present-day plants. Of course, if we were living 150 million years ago it would fit quite nicely within the scheme of living things, as shown in the fossil record. As it is, we know fossils from the Jurassic so similar to our Chinese ginkgo that they could have belonged to the same species. There were then a few more around, but not many. It was a concept that worked and needed no major adaptive changes. Or was it, in the end, so conservative that it had no options left for change? It surely went the same way as *Pseudolarix*, or perhaps even further and into extinction in the wild. Or did it? That is the next question that confronted us on this mountain, Tianmu Shan.

Are the ginkgo trees we saw here the last of their kind 'in the wild' or were they introduced long ago by the monks of the monastery and temple at the foot of the mountain? How could we find out? It did not take us long to find large ginkgo trees in situations where it appeared unlikely that someone had planted them. Growing out of crevices in sheer rock faces, perched on cliff edges or shooting up from jumbles of massive boulders in stream gullies, these were not places where anyone would plant a tree unless the intention was to deceive future scientists, a notion that surely could not

have occurred to the Buddhist monks of centuries ago. Perhaps some trees along the path were planted, then. This could be the case, but if we accept those on the cliffs as spontaneous, then those along the path could be, too, so we were soon convinced that there are large ginkgo trees here that arose spontaneously from seeds dropped by animals.

So far, so good, but animals can carry seeds up a mountain from trees that were planted below. The Chanyuan temple dates from 1425 and it has planted ginkgo trees that are probably as old. The ginkgos we saw on the mountain were quite old, but perhaps not older, and there may have been ginkgos planted at an earlier time that have now gone. So, we have spontaneous regeneration of ginkgos, but their source may still be planted trees. In the evening, some of us discussed this further. One remark in defence of the concept of the ginkgo as a wild tree here was that the monks at the temple must have obtained their seeds from somewhere, and ultimately from wild trees. This mountain seems as good a candidate as any, with *Pseudolarix* and other conifers present as well as an extremely rich arboreal flora generally.

DNA analysis may give the answer, and indeed research into the question using DNA sequences has started. By sampling many trees on the mountain and comparing certain rapidly evolving bits of DNA, it should be possible to detect provenance. If this is narrowly defined, pointing to one or a few parent trees, cultivated ancestry of the 'wild' trees on Tianmu Shan is more likely. If there is greater diversity, at least as much as among cultivated trees in China, Korea and Japan, or even greater, we must conclude that the population on the mountain evolved long ago, well before

anyone ever planted a tree, even in China. With the right sequence data, we could even use the 'molecular clock' technique to estimate when this was happening. The jury is, therefore, still out until the results of these studies are published.

There is no question that Tianmu Shan is most famous for its ginkgos (and now its *Pseudolarix*), but it was impossible not to notice some of the other conifers, and, dare we say, also some of the broadleaved trees. It was surprising to see so many mature specimens of trees in such an accessible area in eastern China; this is probably due to its status as a sacred site. As with the ginkgos and *Pseudolarix*, most of the leaves of the broadleaves had fallen, but a few still hung on, helping with their identification. As we entered the park we came across a few smallish *Pinus hwangshanensis* but these were quickly overlooked in favour of the massive trees of *Cryptomeria japonica*; even though these were cultivated trees, one could not help but be blown away by their size. The only other conifers we saw were stunted *Cephalotaxus fortunei* and *Torreya grandis*; both of these understory 'shrubs' were scattered throughout the forest. None of them was what could be called a good specimen, and it was not until we got right to the end of our walk that we came across a few massive *Torreya grandis* over 20m tall, with twisting bark like that of sweet chestnut.

One of the trees that we were all hoping to see was *Emmenopterys henryi*. This rare tree of central and south-eastern China was introduced into cultivation in 1907 by Ernest Wilson, who described it as "one of the most strikingly beautiful trees of the Chinese forests". It took 80 years to flower in cultivation: the

first flowers being noticed in 1987 at Wakehurst Place, just prior to the great storm. Unfortunately, due to the time of year, we were greeted by a leafless tree! Some of the other plants of interest were *Castanea henryi*, *Pterostyrax corymbosus*, *Daphniphyllum macropodum*, *Litsea auriculata*, *Acer pubipalmatum*, *Acer mono*, *Nyssasinensis*, *Cyclocarya paliurus*, *Cyclobalanopsis myrsinifolia*, *Liquidambar acalycina* and *Liquidambar formosana* to name but a few. We had a fantastic time walking, botanising and admiring the stunning scenery of Tianmu Shan, and cannot thank our gracious hosts enough for laying on such a truly great field trip. None of us can wait to return, next time maybe to see the autumn colours of the ginkgos and *Pseudolarix*, mixed in with those of *Acer*.

References

- [1] www.iucnredlist.org
- [2] Reynolds, C. and Luscombe, D. 2009. Diary of a Visit to China and Vietnam in 2008. *British Conifer Society Journal* 13: pp. 41-52
- [3] United Nations Educational, Scientific and Cultural Organisation, www.unesco.org
- [4] Wu, Z.Y. and Raven P. H., eds. 1999. Flora of China. Vol. 4 (*Cycadaceae through Fagaceae*). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis.
- [5] Farjon, A. 2001. *World Checklist and Bibliography of Conifers*. Royal Botanic Gardens, Kew, London.
- [6] Farjon, A. 2005. *Pines: Drawings and Descriptions of the Genus Pinus*. Brill, Leiden.



Susanna Farm Nursery

The area's finest selection of Dwarf and Unusual Evergreens, Japanese Maples and more...

www.susannafarmnursery.com
 301-972-7513 or 301-938-3440
 1770 White Ground Road
 Boyds, MD 20841

Bethlehem Nursery

66 Jackson Lane, Bethlehem, CT 06751

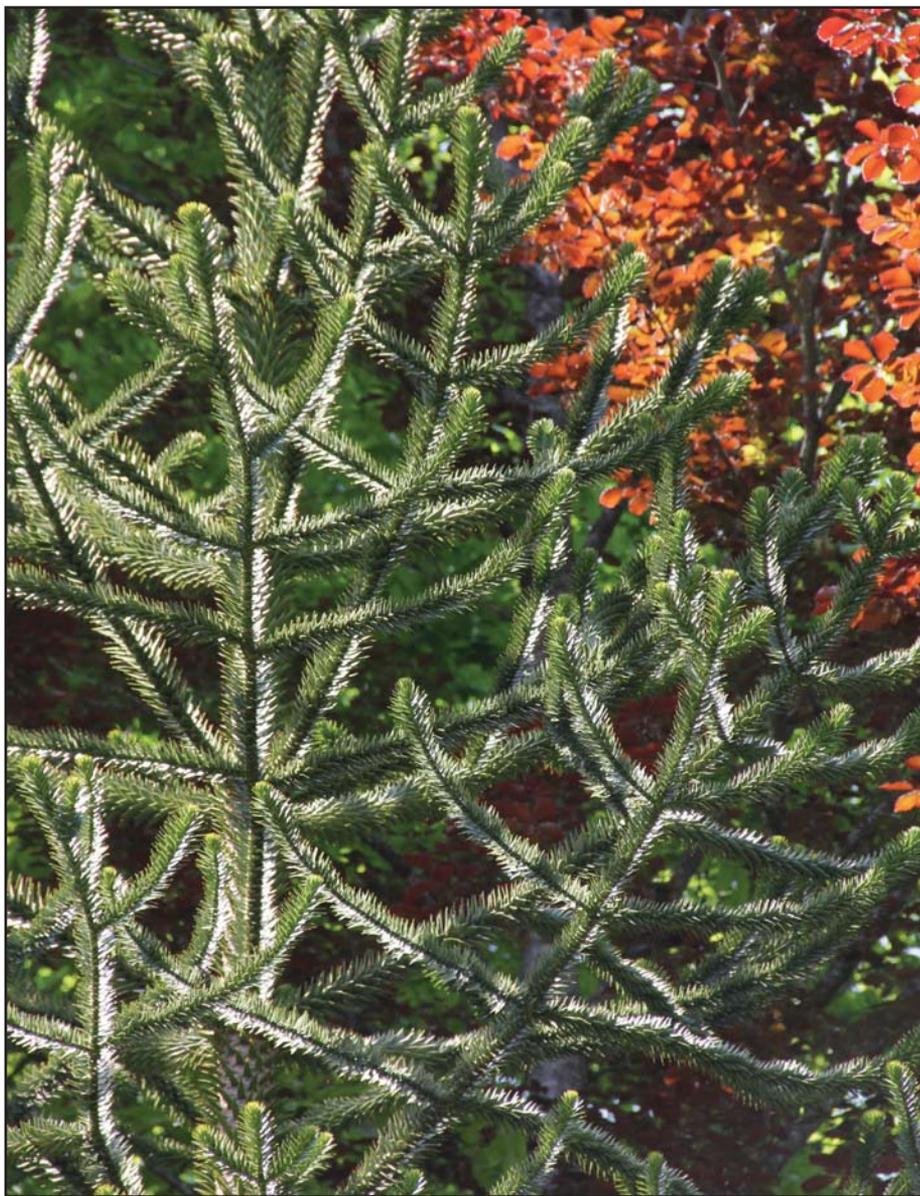
Propagators and growers of rare dwarf and miniature conifers, witches' brooms and rare *Sciadopitys* cultivars. Catering to the most serious collectors and gardeners.

Owner: Dennis Dodge
www.bethlehemnursery.com

Phone/Fax 203.266.7783
graftforyou@aol.com

Hoyt Arboretum

Text and photos by Martin Nicholson



Araucaria araucana

Hoyt Arboretum is Portland Parks and Recreation's Global Garden in the wild. Founded in 1928 to conserve endangered species and to educate the community, Hoyt Arboretum encompasses 187 ridge-top acres, accessible by trails covering 12 miles. A place of beauty and serenity in all seasons, the Arboretum is easily reachable from anywhere in the metropolitan area, by car, bus or the MAX light rail. Hoyt Arboretum is supported by a partnership between Portland Parks and Recreation and Hoyt Arboretum Friends, a membership-based, nonprofit organization working to enhance the Arboretum's mission since 1986.

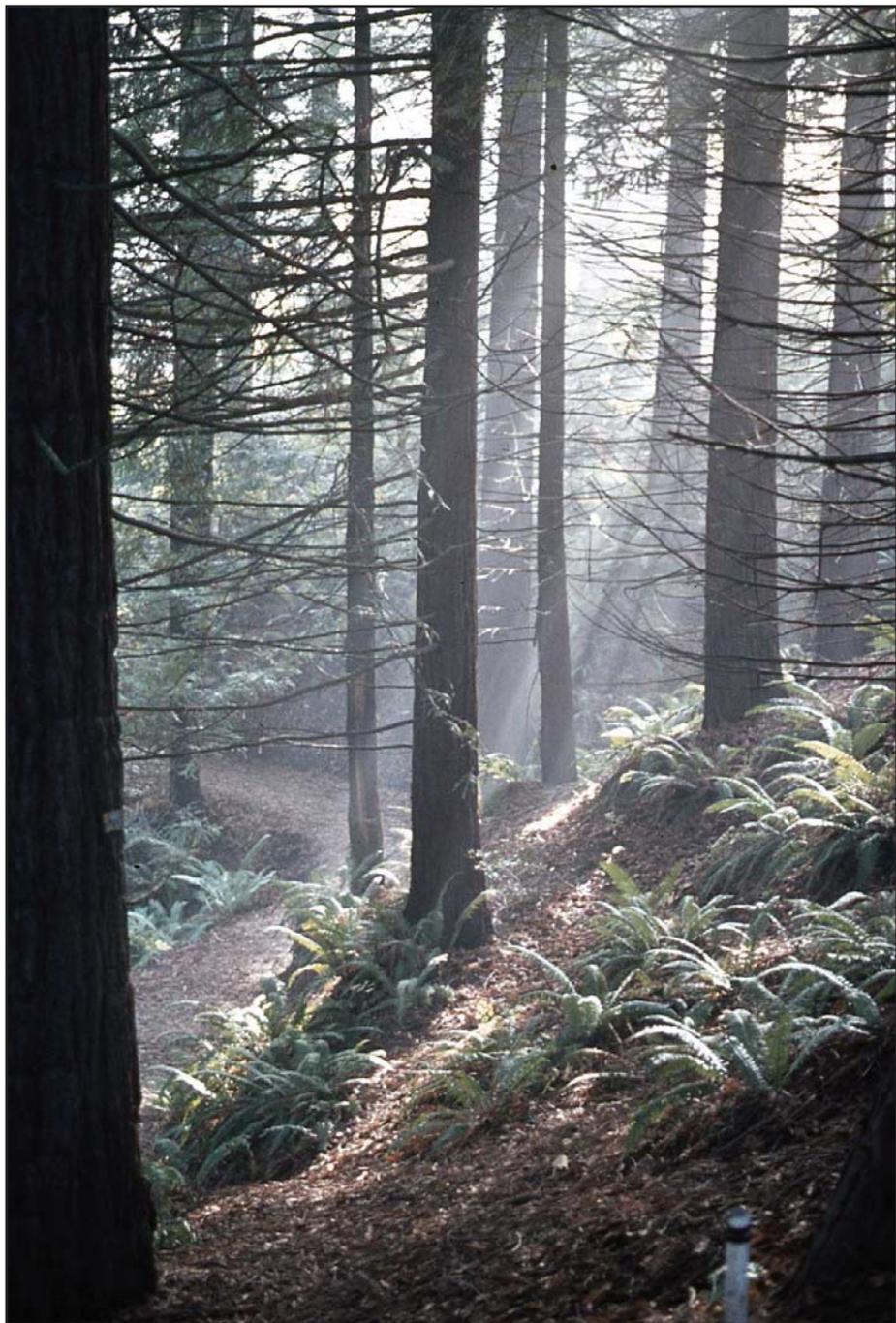
Forest Service, Sinclair Wilson and E. S. Collins representing the timber industry, and C. P. Kayser, Superintendent of Portland Parks. Their enthusiasm for the project came partly from knowledge of the timber industry and forestry practices. But they were also bringing to fruition the idea of an arboretum in the area west of Washington Park, an idea first proposed as part of the Olmstead Brothers' recommendation for Portland Parks in 1903. A plan for development of the Arboretum was drawn up in 1930, and the first trees were planted in 1931. Planning continued over the next several decades, with particular care being given to the range of conifers.



Larix kaempferi

Hoyt Arboretum was dedicated in March of 1928, as a result of efforts by a group of Portland civic leaders - foremost among them Thornton Munger of the U.S.

The master plan created in 1930 by John Duncan was fulfilled by 1954, and many years of ongoing maintenance and care were required to protect the



Sequoia sempervirens

first round of planting. The Columbus Day storm damaged many native areas of trees on the Arboretum's south face. This area had not been developed into part of the Arboretum at that time and, after the storm, much of the soil was lost or compacted, which limited planting.

In 1986, the Hoyt Arboretum Friends Foundation was formed to provide additional support. Operation of the Arboretum is now a successful public/private partnership between HAFF and Portland Parks and Recreation. Although the Arboretum is officially a park within the City of Portland, it acts as a regional resource and serves people from a large surrounding area. More than 350,000 people visit each year, including visitors from all 50 states and many foreign countries. The advent of light rail, which brings visitors to the Arboretum's southern edge, has boosted visitation, as has the increased density of surrounding neighborhoods.

The current collection represents over 1,100 species plus 400 cultivars of woody plants from all over the globe. Hoyt Arboretum is a member of the two multisided national plant collections, maples and magnolias. Hoyt Arboretum houses an extensive conifer collection with many mature specimens which are unmatched at other gardens nationally. 237 species of conifers find their home at Hoyt Arboretum with many endangered species. *Torreya taxifolia*, *Cupressus dupressiana* and *Picea breweriana*

are among the rare species to be found along with our signature *Metasequoia glyptostroboides*, which was the first of the trees received from the 1947 seed collection trip to set cones. This made this tree the first dawn redwood in about 35 million years to set cones in North America. Many other treasures of the conifer world are to be found in one of the most naturalistic settings encountered in American arboreta. The conifer collection continues to grow with new spruce and fir species being added from around the globe, along with additional North American conifer species. Hoyt Arboretum is very proud of its inclusion as a Conifer Reference Garden by the American Conifer Society.

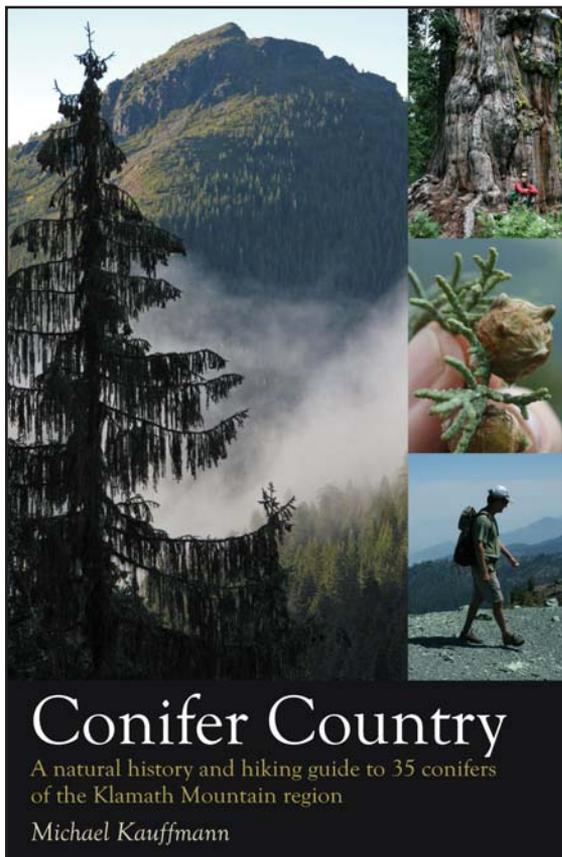
For more information on Hoyt Arboretum, visit us on the web at www.hoytarboretum.org or stop by our Visitors Center. On the web, you can keep tabs on upcoming events, classes and improvements at the Arboretum. The Visitors Center is open Monday through Saturday and provides maps, access to a range of plant information, a gift shop and much more.



Picea chihuahuana

Conifer Country: A natural history and hiking guide to 35 Conifers of the Klamath Mountain region.

by Michael Kauffmann Back Country Press 205 pages



This is no ordinary book about conifers. Rather, it is the tale of a voyager whose personal journey took him into the far reaches of the Klamath Mountain range of northwest California and southwest Oregon to present the conifers of the region for admiration, study and conservation. Through this

process, the reader joins Michael Kauffmann in search of breathtaking vistas described by some of the most beautiful, image-laden language this reviewer has ever read.

In visionary literature the mountain represents the Self, the fully individuated hero who can conquer the ills of the soul

and the world. Through Michael's words it becomes clear that his discovery of the *a priori* 35 conifers in the Klamath and its tributary mountain ranges is really a tale of how Michael's surroundings discovered him. The author admonishes that the many paths and hikes into the mountains demand both a certain environmental awareness and physical strength. But the rewards are incredible as Michael describes them. He was educated by the conifers so that he could "speak for the trees".

From the time of his youth to his present adulthood he longed to search

the wilderness, either for Big Foot or for a coniferous wonderland. When he returned on one day to Humboldt Bay, he stated that he had become a changed man, "a new-growth naturalist [who] would be cultivated". Time and again in the book, there is an unmistakable mystical aura about the images Michael's words paint. It would not be so had Michael Kauffmann not himself experienced an individuation process. He is a natural history guide seen through the eyes of trees.

Michael writes of the three families of trees in the Klamath: *Pinaceae*,



Cupressus nootkatensis

Cupresseceae and *Taxaceae*. He writes of 31 to 38 species of conifers and 13 genera. He comes face to face with *Pseudotsuga*, *Abies*, *Picea*, *Tsuga*, *Pinus*, *Sequoia*, *Calocedrus*, *Thuja*, *Juniperus*, *Cupressus* and *Taxus* on 29 hikes to different valleys and peaks of the Klamath. The reader is admonished to: “Enjoy what you see. ... [C]onifers are a lens for comprehending the real-world example of extended survival across a dynamic landscape.”

This book combines the climatological with the geophysical profile of the conifers highlighted. Quite fascinating is the author description of “hyper-droop witch’s brooms” as “massive conglomerations of branches and needles often in a spherical shape”. In addition, he includes photos of the conifers along with close-ups of the foliage of each tree in 18 color Plates.

Conifer Country reads in a captivating way and certainly not at all like a travel-log. That’s how well-written it is. Added to that facet is the fact that the reader is given excellent information about select conifers and their surroundings.

Compared to the other standard works on conifers authored most recently by Bittner, Eckenwalder, Farjon, Debreczy and Racz, Kauffmann’s book provides a personal insight, “a personal epiphany” if you will, and a flavor which are unique. Thus, the reader receives a triple bonus. In addition to the autobiographical and taxonomic information, the maps and conifer-ranges offer an exact lay



Picea breweriana

of the land for the future traveler. This reviewer found the regions and different trails with their conifer counts along with the elevation charts and levels of hiking difficulty extremely necessary and informative. The author also provides a glossary of terms from the simplest to the most specialized.

I will definitely add this artistic reference book to my library and I recommend that all conifer-lovers do the same. Although Michael calls himself a tree discoverer in his spare time, his dedication and knowledge belie that humble self-description. I would strongly urge you to purchase Michael Kauffmann's work. It is a most worthwhile treatise.

Note: Michael is offering a 10% discount to ACS members if the book is ordered by August 31, 2012.

See <http://backcountrypress.com/store/ACS-10>

Ronald J. Elardo, Ph.D.



SmallPlants.Com

Let us be your first choice for
dwarf conifers, japanese maples,
and more.

*Evergreen, deciduous, flowering,
variegated, and all small!*

Online catalog:
www.smallplants.com

Next Issue: FALL 2012

Our next issue will feature:
Conifers and the Holidays

Conifers are an amazement over which we and nature share stewardship. They are such unique plants that surprise all who stop by to sojourn. The themes proposed are meant to inspire and to inquire. Whether you are a novice, an explorer or a connoisseur and you have a story to tell – a favorite conifer, pictures, plant care, problem solutions, a new hybrid or cultivar, we want to hear from you. We welcome any interpretation or addition to the main themes we offer.

Future Issue Themes: Please look at future themes and consider sending your articles in advance of published deadlines.

Hearing from ACS Members on Future Themes for the CQ (Winter 2013)

The Science of Conifers (Spring 2013)

We at *Conifer Quarterly* welcome news alerts about conifers or about our members.

Contact Dr. Ronald J. Elardo (conifereditor@yahoo.com) to discuss your ideaS

Our Dream

Text and Photos by Dave and Sharon Helmlinger

We would like to share our Conifer collection years with your readers. We live in Logan County, Ohio, near the Indian Lake area, where we purchased a place along a lane with a small home and some out buildings. There were two old Mulberry trees, an old oak and some scattered bushes on 11.2 acres. With farmland around us, the wind could be very strong. We decided to put in a windbreak.

I thought a few trees on the side of our home would be nice, but we ended up with Colorado spruce and white pine from the road all the way up the lane and back to the end of the property.

This is when Dave got the conifer addiction. Since we were truck drivers and had a route which took us to Oregon

frequently, we would take time to visit the nurseries there. Many weeks we would return home with a forest of young trees in our cab.

Dave said we needed landscaping. Well, I guess we took care of that because over the years we ended up with lots of beautiful conifers. He fell in love with fir, Alaskan cedar, juniper, larch and hemlock. At this time we have approximately 80 species of conifers, plus many hybrids, varieties and cultivars. Dave loves to care for them and to keep them healthy. The fir have done surprisingly well here in Ohio.



Picea orientalis 'Skylands'



Picea retroflexa (Tapao Shan spruce)

But he didn't stop there. He found deciduous and ornamental trees. He loves oaks. We have 26 species. The Emperor



Juniperus x media
'Saybrook Gold'



Picea abies
'Pendula'

oak with its huge leaves is fascinating. Also, we have many other ornamental trees, grasses, shrubs and bushes.

Did I mention we put in a ½ acre pond? It needed landscaping too, so we planted some lovely flowers, grasses, willows and junipers around the pond. The Koi are fun to watch, and the bluegill are good to eat. Although if you swim with a suit that has a flower pattern, they will nip at you.

Next were the flower beds and rock gardens. Oh, I forgot the waterfall mound with its conifer plantings and the

tri-color beech behind.

About this time, instead of complaining about everything, I got involved. Lilacs, Seven Sons Flower trees. The edibles: nut trees, paw paw, persimmon, apple, young peach trees and a cherry, all the fruit of which the birds seem to eat in one day.

We enjoyed our times in Oregon and met many wonderful people. We learned about the American Conifer Society from some of the members and founders there. Sometimes they would give us one of the small trees they had just propagated or

discovered. One of our special ones is *Abies koreana* 'Silberlocke', which was given to us by Mr. Richard Bush.

When we are asked about our favorite tree, it is just too hard to answer. We enjoy walking through the trees with our dog and the friendly peacock which follows us, along with the stray cat which has adopted our home.

There is a saying that all good things must come to an end. In our case it is because of health issues. We must leave this place and move closer to family. This was to be our life of retirement, our dream for the future. We had even made arrangements to build our new home this summer. If there is anyone wanting to find a place like this, we will be happy to show you around and give you the "tour". You may contact us at 937-843-4124.



Picea omorika 'Pendula Bruns' in front,
Picea omorika 'Pendula' in rear'



Pinus abies 'Procumbens'



Pinus aristata



Picea abies 'Acrocona'

**AMERICAN CONIFER SOCIETY
BOARD OF DIRECTORS MEETING**

CENTRAL REGION REPORT

**NATIONAL SUMMER MEETING, JULY 12, 2012, ANN
ARBOR, MICHIGAN**

Officers:

Chris Daeger – President, term ends summer 2012 *
Jim Kelley - V P *
Steve Courtney – Treasurer and National Director
Kim Downs – Secretary

* Election Results: As of this report, there have been elections, in which the above officers' names will officially change at the national meeting after being ratified by the attending membership. Jim Kelley has been elected President, and Gary Whittenbaugh is now the CR Vice President. Steve Courtney and Kim Downs were re-elected to their current positions. All will serve a term of two years.

Another portion of this year's election process resulted in the forming of a new Advisory Committee or Council for the Central Region. These people will assist or advise the aforementioned officers with the business and projects of the CR. John Gardner narrowly defeated John Amdall in the election as the Chairman. Gary Whittenbaugh, Jay Park, Ed Hasselkus and Byron Baxter each received votes to serve on this board.

Congratulations to all who have been elected. I encourage the remaining members of the CR personally to acknowledge and thank these fellow members when your paths cross in the future.

New Conifer Reference Gardens

Two new CRG's have been added to the CR list: The Bickelhaupt Arboretum of Clinton, Iowa and the Powell Gardens of Kingsville, Missouri. They have met all the requirements of being so named, and in the near future we will be getting a taste of their collections through *Conifer Quarterly* articles and pictures. Please take the time to visit these gardens as they both have very nice collections of conifers (and other things too) for you to drool over. These gardens bring the total to four CRG's in the CR. We welcome other non-profit gardens to apply for this prestigious award.

Notes about future meetings

Of course, the National Meeting is set for the CR site in Michigan this summer and, as of June 20, 2012 there are a record number of registrations already made. It promises to be one great meeting.

2013 is still set for the Rockford – Northwest Chicago area in Illinois. Susan and Rich Eyre are the committee chairpersons for this event. Details will probably surface in the coming days or months.

2014 CR summer meeting location has not been selected yet. The new officers and Board will begin work on selecting a site. CR members are encouraged to help pick an exciting, perhaps a never-been-visited location.

Treasurers Report – There is \$26,287.62 in the account as of 5-31-2012.

Submitted by Chris Daeger, 6-20-2012

**Want to learn more
about conifers?
Go to the ACSWeb site
www.conifersociety.org**



KLEHM'S SONG SPARROW
FARM AND NURSERY

Fine Woody & Herbaceous Plants
FROM OUR WISCONSIN FARM

*We offer a group of choice conifers, including
unusual forms and needle coloration.*

*Complete online listings,
complimentary color catalog.*

1-800-553-3715
www.songsparrow.com

*Stunning specimen
trees for collectors!*

Rich's Foxwillow Pines Nursery Inc.

Dwarf conifers Japanese maples Ginkgos Beeches Hostas

Rich & Susan Eyre
11618 McConnell Rd. Woodstock, IL 60098
Phone: 815-338-7442 Fax: 815-338-7446

www.richsfoxwillowpines.com
email: coniflora@richsfoxwillowpines.com



Pinus balfouriana (Foxtail Pine) Trinity Alps



Pinus albicaulis
(Whitebark Pine)
Mount Eddy
Photos by Michael
Kauffmann

Broken Arrow Nursery, LLC



Dwarf Conifers, New England Native Plants, Rare Trees and Shrubs
Retail, Mail Order and Wholesale

www.brokenarrownursery.com

13 Broken Arrow Road, Hamden, CT 06518 • 203-288-1026

Publication Dates

<u>Issue</u>	<u>Calendar Quarter</u>	<u>Deadline to submit articles</u>	<u>Publication Date (approx.mailing)</u>
Winter	Jan/Feb/Mar	Nov 22	Jan 15
Spring	Apr/May/June	Feb 15	Apr 15
Summer	Jul/Aug/Sept	May 15	July 15
Fall	Oct/Nov/Dec 31	Aug 15	Oct 15

Submit articles/photos to:

Ron Elardo, Conifer Quarterly Editor •
5749 Hunter Ct., Adrian, MI 49221-2471
PH (517) 902-7230 • E-mail: conifereditor@yahoo.com

"A Leap Above The Rest"



**PONDS
& PLANTS**

Garden Center • Landscape • Exhibits

Growers of the Rare & Unusual

423 • 570 • 1234
www.pondsplants.com

PAULINE MANSER
MANAGER

1668 RHEA COUNTY HWY
DAYTON, TN 37321
TUES. - SAT. 8 - 5

SUNCREST



GARDENS

2010 is our 64th year in business.
We offer dwarf and unusual conifers
and Japanese maples.

**Please call ahead
(717) 486-5142**

816 Holly Pike
Mt. Holly Springs, PA 17065
www.suncrest-gardens.com

Directorate

National Officers

President

Ethan Johnson, Home:39005 Arcadia Circle, Willoughby, OH 44094
PH (440)721-1386, E-mail: ethjohnson@yahoo.com
Work: The Holden Arboretum, 9500 Sperry Rd, Kirtland, OH 44094
PH (440) 602-3803, E-mail: ejohnson@holdenarb.org

Vice President/Treasurer

Larry Nau, 25 Knollwood Dr, Churchville, NY 14428
PH (585) 202-1815, E-mail: lnau@frontiernet.net

Secretary

Kathleen Pottratz, PO Box 292, Scott Mills, OR 97375
PH (503) 985-7561, E-mail: kpottz@frontier.com

Past President

Ellen Kelley, 3445 Oakory Ln, Bettendorf, IA 52722
PH (563) 650-2212, E-mail: cembra041@mchsi.com

Regional Directors

Northeastern Region President

Frank Goodhart, 27 Old Knoll Rd., Mendham, NJ
PH (908) 879-4788, E-mail: frankwgoodhart@comcast.net

Director

Suzanne Mahoney, 150 Elm St, Hanover, MA 02339
PH (781) 826-2915, E-mail: misuel150@verizon.net

Southeastern Region President

Dr. Susan Hamilton, University of Tennessee, Room 252, Ellington
Plant Sciences Bldg, 2431 Joe Johnson Drive, Knoxville, TN 37996
PH (865) 974-7324, E-mail: sueham@utk.edu

Director

Tom Neff, 4000 Lindsey Rd. NE, Marietta, GA 30067-4224
E-mail: tsneff2003@yahoo.com

Central Region President

Christopher Daeger, M. Rowe Arboretum, 4600 Muchmore Rd,
Cincinnati, OH 45243 PH (513)561-5151, E-mail: cdaeger@ihill.org

Director

Steven Courtney, 2035 Friar Tuck Cir, Adrian, MI 49221
PH (517) 431-2060, E-mail: courtn33@anr.msu.edu

Western Region President

Joseph Carli, 20227 Canterwood Ct, Oregon City, OR 97045
E-mail: joe.carli@spadafarms.com

Director

Douglas D. Wilson, 1858 Michigan City LN NW,
Salem OR 97304-9554, PH (530) 581-5880

Staff & Volunteers

National Office Manager

John Martin, 175 Charisma Lane, Lewisville, NC 27023-9611
PH (336) 945-0483, FAX (336) 945-0484,
E-mail: conifersociety@aol.com

ConiferQuarterly Editor

Dr. Ronald J. Elardo, 5749 Hunter Ct, Adrian, MI 49221-2471
PH (517) 902-7230, E-mail: conifereditor@yahoo.com

Webmaster

Bill Barger, 3200 Roher Rd, Wadsworth, OH 44281
PH (330) 336-9695, E-mail: billb@conifergarden.com

Collectors ConiferChairman

Dennis Lee, PO Box 1332, Stow, OH 44224
PH (330) 688-4283, E-mail: coniferden@msn.com

Seed Exchange Chairman

Jim Brackman, Old Highway 410 SW, Olympia, WA 98512
PH (253) 736-5864, E-mail: james.brackman@weyerhaeuser.com

ConiferRegistrar

Richard Larson, The Dawes Arboretum, 7770 Jacksontown Rd,
Newark, OH 43056 PH (800) 443-2937,
E-mail: ralarson@dawesarb.org